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PATENT COOPERATION TREATY



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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 21687WO		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/NL 03/00511	International filing date (day/month/year) 11.07.2003	Priority date (day/month/year) 18.07.2002	
International Patent Classification (IPC) or both national classification and IPC C08L23/00			
Applicant DSM IP ASSETS B.V.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input checked="" type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 			
Date of submission of the demand 17.02.2004		Date of completion of this report 24.06.2004	
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Bergmans, K Telephone No. +31 70 340-4189 	

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I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-11 as originally filed

Claims, Numbers

1-11 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 3-11

because:

☒ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

see separate sheet

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the Standard.

☐ the computer readable form has not been furnished or does not comply with the Standard.

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:

☐ restricted the claims.

☐ paid additional fees.

☐ paid additional fees under protest.

☒ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

☐ complied with.

☒ not complied with for the following reasons:

see separate sheet

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4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

☐ all parts.

☒ the parts relating to claims Nos. 1,2 .

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1,2
Inventive step (IS)	Yes: Claims	
	No: Claims	1,2
Industrial applicability (IA)	Yes: Claims	1,2
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item IV

Lack of unity of invention

The examiner found that the application lacks unity within the meaning of Rule 13.1 PCT.

The common concept between claim 1 and the rest of the independent claims is a composition comprising an elastomeric polymer (100 parts by weight) and an olefinic polymer (1-50 parts by weight).

Document D1 discloses a composition comprising an elastomeric polymer (10-94 wt%) and an olefinic polymer (5-80 wt%).

All the technical features of the common concept as indicated above are known from document D1. Therefore, the application lacks unity of invention within the meaning of Rule 13(1) PCT. The especial technical features according to rule 13 (2) PCT which provide a contribution over the prior art are not so linked to form a unitary inventive concept. Claims 1 and 2 define a foamed composition comprising an elastomeric polymer and an olefinic polymer with a density between 880-915 kg/m³. The claims 3-7 define a composition comprising an elastomeric polymer having a crystallinity of at most 5 % and an olefinic polymer having a density between 880-915 kg/m³. The claims 8-10 define a preblend comprising an elastomeric polymer and an olefinic polymer. The claim 11 defines a compounding process for the preblend.

Therefore the different inventions lead to different results. Consequently, the present set of claims breaks up in four inventions as follows:

Claims 1,2 : A foamed composition comprising an elastomeric polymer and an olefinic polymer with a density between 880-915 kg/m³.

Claim 3-7 : A composition comprising an elastomeric polymer having a crystallinity of at most 5 % and an olefinic polymer having a density between 880-915 kg/m³.

Claims 8-10 : A preblend comprising an elastomeric polymer and an olefinic polymer.

Claim 11 : A process for compounding the preblend disclosed in claims 8-10.

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There are four independent claims each one containing especial technical feature not linked by a common concept. Therefore, four different inventions can be identified. However, the examiner has grouped said four inventions in only three for the benefit of the applicant according to the following :

Claims 1,2 : A foamed composition comprising an elastomeric polymer and an olefinic polymer with a density between 880-915 kg/m³.

Claims 3-7 : A composition comprising an elastomeric polymer having a crystallinity of at most 5 % and an olefinic polymer having a density between 880-915 kg/m³.

Claims 8-11 : A preblend comprising an elastomeric polymer and an olefinic polymer and a process for compounding this preblend.

Since there was no reply of the applicant only invention 1 (claims 1 and 2) is examined (Art. 34 (c)PCT).

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1 : EP1197521

Novelty (Art. 33 (2) PCT)

The document D1 discloses a foamed composition comprising an elastomeric polymer like EPDM (page 2 line 50) and an ethylene alpha olefin copolymer wherein the comonomer has 3-6 carbon atoms (page 3 lines 10-19). Although the density of the ethylene copolymer is not disclosed, it is known from the prior art that the density of LLDPE copolymers is lower than 915 kg/m³ (see polymeric material encyclopaedia; j.C. Salamone). The composition can be used as a master batch or preblend composition wherein the composition is present in an amount higher than 75 wt% (page 10 line 26). The composition or master batch is used in compounding applications. The subject matter of claims 1,2 over D1 is considered to be not novel (Art. 33(2) PCT).

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Inventive step (Art. 33(3) PCT)

All the technical features of the present claims 1 and 2 are described in document D1. Therefore the claims 1 and 2 do not involve an inventive step (Art. 33(3) PCT).

Re Item VII

Certain defects in the international application

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in document D1 is not mentioned in the description, nor is this document identified therein.